

SEQUENCE LISTING

SEQ ID NO:1

Mouse SSG amino acid sequence

5 MGELPFLSPEGARGPHINRGSLSSLEQGSVTGTEARHSLGVLHVSYSVSNRVPWWNIKS
CQQKWDRQILKDVSLYIESGQIMCILGSSSGKTLDAISGRLRRTGTLEGEVFVNGCE
LRRDQFQDCFSYVLQSDVFLSSLTVRTLRYTAMLALCRSSADFYNKKVEAVMTELSLSH
VADQMIGSYNFGGISSGERRVSIAAQLLQDPKVMLDEPTTGLDCMTANQIVLLLAL
RRDRIVIVTIHQPRSELFQHFDKIAILTYGELVFCGTPEEMLGFFNNCGYPCEHSNPFD
10 FYMDLTSVDTQSREREIETYKRVQMLECAFKESDIYHKILENIERARYLKTLPMVPFKT
DPPGMFGKLGVLRRVTRNLMRNQAVIMRLVQNLIMGLFLIFYLLRVQNNTLKGAVQDR
VGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQESQDGLYHKWQMLLAYVLHVLPSVIAT
VIFSSVCYWTGLYPEVARFGYFSALLAPHLIGEFLTLVLLGIVQNPNIVNSIVALLSI
SGLLIGSGFIRNIQEMPIPLKILGYFTQKYCCEILVVNEFYGLNFTCGGSNTSMLNHPM
15 CAITQGVQFIEKTCPGATSRTANFLILYGFIPALVILGIVIFKVRDYLISR

SEQ ID NO:2

Mouse SSG nucleotide sequence

20 GGGACAGGCCACTAGAAAATTCACTTGCATTTGCTTCTGCTAGCCATGGGTGAGCTGCC
CTTTCTGAGTCCAGAGGGAGCCAGAGGGCCTCACATCAACAGAGGGTCTCTGAGCTCCCT
GGAGCAAGGTTCGGTACGGGCACAGAGGGCTGGCACAGCTTAGGTGTCCTGCATGTGTC
CTACAGCGTCAGCAACCGTGTGGCCTTGGAACATCAAATCATGCCAGCAGAAGTG
GGACAGGCAAATCCTCAAAGATGTCTCCTTGTACATCGAGAGTGGCCAGATTATGTGCAT
25 CTTAGGCAGCTCAGGCTCAGGGAAAGACCACGCTGCTGGACGCCATCTCCGGGAGGCTGCG
GCGCACTGGGACCCCTGGAAGGGGAGGTGTTGTGAATGGCTGCGAGCTGCGCAGGGACCA
GTTCCAAGACTGCTTCTCCTACGTCCCTGCAAGACGACGTTTCTGAGCAGCCTCACTGT
GCGCGAGACGTTGCGATAACACAGCGATGCTGGCCCTCTGCCAGCTCCGGACTTCTA
CAACAAGAAGGTAGAGGCAGTCATGACAGAGCTGAGCCTGAGCCACGTGGCGGACCAAAT
30 GATTGGCAGCTATAATTTGGGGAATTCCAGTGGCGAGCGGCCGAGTTCCATCGC
AGCCCAACTCCTCAGGACCCAAGGTATGATGCTAGATGAGCCAACCACAGGACTGGA
CTGCATGACTGCAAATCAAATTGTCCTCTGGCTGAGCTGGCTCGCAGGGACCGAAT
TGTGATTGTCACCATCCACCAGCCTCGCTCTGAGCTTCCAACACTTCGACAAAATTGC
CATCCTGACTTACGGAGAGTTGGTGTCTGTGGCACCCAGAGGAGATGCTGGCTTCTT

CAATAACTGTGGTTACCCCTGTCCTGAACATTCCAATCCCTTGATTTACATGGACTT
GACATCAGTGGACACCCAAAGCAGAGAGCGGAAATAGAAACGTACAAGCGAGTACAGAT
GCTGGAATGTGCCTTCAAGGAATCTGACATCTACAAAATTCTGGAGAACATTGAAAG
AGCACGATACTGAAAACCTTACCCATGGTCCTTCAAAACAAAAGATCCTCCTGGGAT
5 GTTCGGCAAGCTTGGTGTCTGCTGAGGCGAGTAACAAGAAACTTAATGAGGAATAAGCA
GGCAGTGATTATGCGTCTCGTCAGAATCTGATCATGGGCCTCTCCTCATTCTACCT
TCTCCCGTCCAGAACACACGCTAAAGGGCGCTGTGCAGGACCAGCTGGGCTGCTCTA
TCAGCTTGTGGGTGCCACCCCATACACCGGCATGCTCAATGCTGTGAATCTGTTCCAT
GCTGAGAGCCGTCAGCGACCAGGAGAGTCAGGATGGCCTGTATCATAAGTGGCAGATGCT
10 GCTCGCCTACGTGCTACACGTCTCCCTCAGCGTCATGCCACGGTCATTTCAGCAG
TGTGTGTTATTGGACTCTGGCTTGTATCCTGAAGTTGCCAGATTGGATATTCTCTGC
TGCTCTTTGGCCCTCACTTAATTGGAGAATTCTAACACTTGTGCTGCTGGTATAGT
CCAAAACCTAATATTGCAACAGTATAGTGGCTCTGCTCAGCATCTCTGGCCTGCTTAT
TGGATCTGGATTATCAGAACATACAAGAAATGCCATTCTTAAAAATCCTGGTTA
15 TTTTACATTCCAAAAAACTGTTGTGAGATTCTCGTGGTCAATGAGTTTACGGCCTGAA
CTTCACTTGTGGTGGATCCAACACCTCTATGCTAAATACCCGATGTGCCATCACCCA
AGGGTCCAGTTCATCGAGAAAACCTGCCAGGTGCTACATCCAGATTACGGCAAACCT
CCTCATCTTATATGGTTATCCAGCTCTGGTCATCCTAGGAATAGTGAATTAAAGT
CAGGGACTACCTGATTAGCAGATAGTTAAGATGACAGGCAGGAAAGGGTAATGGCAGG
20 CACGCCCACTGTGGAGCACAGAGAAGTACTGTCTTCAACCATCAGGATTCCATCTGCGAC
CCTTGTGTCTGACCCTGTCTATCCGGAGCCCCAAGGGCAACGAGAACTCACAGCCCT
CTGCTATTCCAGCTTGTGGGCAATGTGGTGTGGACATTGTGACTGAACGGTCCAAT
AATGTAATAATAATTACATAAACCTACAGGACATT

25

SEQ ID NO:3

Human SSG amino acid sequence

MGDLSSLTPGGSMGLQVNRGSQSSLEGAPATAPEHSLGILHASYSVSHRVRPWWDITSC
30 RQQWTRQILKDVSLYVESGQIMCILGSSSGKTLDDAMSGRLGRAGTFLGEVYVNRL
RREQFQDCFSYVLQSDTLLSSLTVRTLHYTALLAIRRGNPQSFQKKVEAVMAELSLSHV
ADR LIGNYSLGGISTGERRVSIAAQLLQDPKVMLFDEPTTGLDCMTANQIVVLLVELAR
RNRIVVLTIHQPRSELFQLFDKIAILSFGELIFCGTPAEMLDFFNDCGYPCPEHSNPFD
YMDLTSVDTQSKEREIETSKRVQMIIESAYKKSAIChKTLKNIERMKHLKTLPMVPFKTD

SPGVFSKLGVLRRVTRNLVRNKLAVITRLLQNLIMGLFLLFFVLRVRSNLKGAIQDRV
GLLYQFVGATPYTGMLNAVNLFPVLRAVSDQESQDGLYQKWQMLAYALHVLPFSSVVATM
IFSSVCYWTLGLHPEVARFGYFSALLAPHLIGEFLTLVLLGIVQNPNIVNSVALLSIA
GVLVGSGFLRNIQEMPIPFKIISYFTFQKYCSEILVVNEFYGLNFTCGSSNVSVTTNPMC
5 AFTQGIQFIEKTCPGATSRFTMNFLILYSFIPALVILGIVVFKIRDHLISR

SEQ ID NO:4

Human SSG nucleotide sequence

10 GTCAGGTGGAGCAGGCAGGGCAGTCTGCCACGGCTCCCACTGAAGCCACTCTGGGA
GGGTCCGGCCACCAAGAAAATTGCCAGCTTGCTGCCTGTTGCCATGGGTGACCTCTC
ATCTTGACCCCCGGAGGGTCCATGGGTCTCCAAGTAAACAGAGGGCTCCAGAGCTCCCT
GGAGGGGGCTCCTGCCACCGCCCCGGAGCCTCACAGCCTGGCATCCTCCATGCCTCCTA
15 CAGCGTCAGCCACCGCGTGAGGCCCTGGTGGGACATCACATCTTGCAGCAGCAGTGGAC
CAGGCAGATCCTCAAAGATGTCTCCTGTACGTGGAGAGCGGGCAGATCATGTGCATCCT
AGGAAGCTCAGGCTCCGGAAAACCACGCTGCTGGACGCCATGTCCGGAGGCTGGCG
CGCGGGGACCTCCTGGGGAGGTGTATGTGAAACGCCGGCGCTGCCGGAGCAGTT
CCAGGACTGCTTCTCCTACGTCCCTGAGCGACACCCCTGCTGAGCAGCCTCACCGTGCG
20 CGAGACGCTGCACTACACCGCGCTGCTGCCATCCGCCGGCAATCCGGCTCCTCCA
GAAGAAGGTGGAGGCCGTATGGCAGAGCTGAGTCTGAGCCATGTGGCAGACCGACTGAT
TGGCAACTACAGCTTGGGGGCATTCACGGGTGAGCGGCCGGTCTCCATCGCAGC
CCAGCTGCTCCAGGATCCTAACGGTATGCTGTTGATGAGCCAACCACAGGCCTGGACTG
CATGACTGCTAACAGATTGTCGTCCCTGGTGGAACTGGCTCGCAGGAACCGAATTGT
25 GGTTCTCACCATTACCAAGCCCCGTTCTGAGCTTTCTGAGCTCTTGACAAAATTGCCAT
CCTGAGCTTCGGAGAGCTGATTTCTGTGGCACGCCAGCGGAAATGCTTGTGATTTCTCAA
TGACTGCGGTTACCCCTGTCTGAACATTCAAACCCCTTGACTCTATATGGACCTGAC
GTCAGTGGATACCCAAAGCAAGGAACGGGAAATAGAAACCTCCAAGAGAGTCCAGATGAT
AGAATCTGCCTACAAGAAATCAGCAATTGTCATAAAACTTGAAGAATATTGAAAGAAT
30 GAAACACCTGAAAACGTTACCAATGGTCCTTCAAAACCAAGATTCTCCTGGAGTTT
CTCTAAACTGGGTGTTCTCCTGAGGAGAGTGACAAGAAACTGGTGAGAAATAAGCTGGC
AGTGATTACCGTCTCCTCAGAATCTGATCATGGTTGTTCTCCTTCTCGTTCT
GCGGGTCCGAAGCAATGTGCTAAAGGGTGCTATCCAGGACCGCGTAGGTCTCCTTACCA
GTTTGTGGCGCCACCCGTACACAGGCATGCTGAACGCTGTGAATCTGTTCCCGTGT

098379630 0141 00000
GCGAGCTGTCAGCGACCAGGAGAGTCAGGACGGCCTCTACCAGAAGTGGCAGATGATGCT
GGCCTATGCACGTGCACGCTCCCTCAGCGTTGCCACCATGATTTCAGCAGTGT
GTGCTACTGGACGCTGGGCTTACATCCTGAGGTTGCCGATTGGATATTTCTGCTGC
TCTCTGGCCCCCCACTTAATTGGTGAATTCTAACTCTGTGCTACTGGTATCGTCCA
5 AAATCCAAATATAGTCAACAGTGTAGTGGCTCTGCTGCCATTGCGGGGTGCTTGG
ATCTGGATTCCCTCAGAAACATACAAGAAATGCCATTCTTTAAAATCATCAGTTATT
TACATTCCAAAAATATTGCAGTGAGATTCTGTAGTCAATGAGTTCTACGGACTGAATT
CACTTGTGGCAGCTCAAATGTTCTGTGACAACATAATCCAATGTGTGCCTTCACTCAAGG
AATTCAATTCAATTGAGAAAACCTGCCAGGTGCAACATCTAGATTACAATGAACTTCT
10 GATTGTATTCAATTCCAGCTCTGTACCTAGGAATAGTTGTTCAAAATAAG
GGATCATCTCATTAGCAGGTAGTGAAAGCCATGGCTGGAAAATGGAAGTGAAGCTGCCG
ACTGTGCATGACTGCTCTGAACGTCTGAAATGAGAGTGCCTGTATTCTTGACAG
GACATCTCAAGTCTTAACCATTAAAGACTCCATTGTGCCTCTGGATCCAAGCAGGCC
TTGAATGCAATGGAAGTGGTTATAGTCCCTGCTCTTACAACATTGCAGGGACATGTGGT
15 TATTGGAAATTGTGACTGAGCGGACCAAGAATGTAATAATATTCAAAACCTATGGG

SEQ ID NO:5

SSG signature sequence 1

20 AALLAPHLIGEFLTLVLL

SEQ ID NO:6

25 SSG signature sequence 2

FIPALVILGIV

SEQ ID NO:7

30 Exon 1 of hSSG

GTCAGGTGGAGCAGGCAGGGCAGTCTGCCACGGCTCCCAACTGAAGCCACTCTGGGA
GGTCCGGCCACCAGAAAATTGCCAGCTTGCTGCCTGTTGCCATGGGTGACCTCTC
ATCTTGACCCCGGAGGGTCCATGGGTCTCCAAGTAAACAGAGGGCTCCAGAGCTCCCT

GGAGGGGGCTCCTGCCACCGCCCCGGAGCCTCACAGCCTGGCATCCTCCATGCCTCCTA
CAGCGTCAG

5 **SEQ ID NO:8**

Exon 2 of hSSG

CCACCGCGTGAGGCCCTGGTGGACATCACATCTGCCGGCAGCAGTGGACCAGGCAGAT
CCTCAAAGATGTCTCCTTGTACGTGGAGAGCGGGCAGATCATGTGCATCCTAGGAAGCTC

10 AG

SEQ ID NO:9

Exon 3 of hSSG

15 GCTCCGGGAAAACCACGCTGCTGGACGCCATGTCCGGGAGGCTGGGGCGCGCGGGGACCT
TCCTGGGGGAGGTGTATGTGAACGGCCGGCGCTGCGCCGGAGCAGTTCCAGGACTGCT
TCTCCTACGTCCCTGCAG

SEQ ID NO:10

20 Exon 4 of hSSG

AGCGACACCCCTGCTGAGCAGCCTCACCGTGCAGACGCTGCACTACACCGCGCTGCTG
GCCATCCGCCGCGGCAATCCGGCTCCTCCAGAAGAAGGTGG

25 **SEQ ID NO:11**

Exon 5 of hSSG

AGGCCGTATGGCAGAGCTGAGTCTGAGCCATGTGGCAGACCGACTGATTGGCAACTACA
GCTTGGGGGGCATTTCCACGGGTGAGCGGCGCCGGTCTCCATCGCAGCCCAGCTGCTCC
30 AGGATCCTA

SEQ ID NO:12

Exon 6 of hSSG

AGGTGATGCTGTTGATGAGCCAACCACAGGCCTGGACTGCATGACTGCTAATCAGATTG
TCGTCCCTGGTGGAACTGGCTCGCAGGAACCGAATTGTGGTTCTACCATTACCAGC
CCCCTGAGCTTTTCAG

5 **SEQ ID NO:13**

Exon 7 of hSSG

CTCTTGACAAAATTGCCATCCTGAGCTCGGAGAGCTGATTTCTGTGGCACGCCAGCG
GAAATGCTTGATTCTCAATGACTGCAGTTACCCCTGTCCTGAACATTCAAACCCCTTT

10 GACTTCTATA

SEQ ID NO:14

Exon 8 of hSSG

15 TGGACCTGACGTCAGTGGATACCCAAAGCAAGGAACGGAAATAGAAACCTCCAAGAGAG
TCCAGATGATAGAATCTGCCTACAAGAAATCAGCAATTGTCATAAAACTTGAAGAATA
TTGAAAGAACACCTGAAAACGTTACCAATGGTCCTTCAAAACCAAAGATTCTC
CTGGAGTTTCTCTAAACTGGGTGTTCTCCTGAG

20 **SEQ ID NO:15**

Exon 9 of hSSG

GAGAGTGACAAGAAACTGGTGAGAAATAAGCTGGCAGTGATTACGCGTCTCCTTCAGAA
TCTGATCATGGTTGTTCTCCTTCTTCGTTCTGGGGTCCGAACCAATGTGCTAAA
25 GGGTGCTATCCAGGACCGCGTAGGTCTCCTTACCAAGTTGTGGCGCCACCCGTACAC
AGGCATGCTGAACGCTGTGAATCTGT

SEQ ID NO:16

Exon 10 of hSSG

30 TTCCCGTGTGCGAGCTGTCAGCGACCAGGAGAGTCAGGACGGCCTCTACCAGAAGTGGC
AGATGATGCTGGCTATGCACTGCACGTCTCCCTTCAGCGTTGTTGCCACCATGATT
TCAGCAGTGTGTGCTACTG

SEQ ID NO:17

Exon 11 of hSSG

GACGCTGGGCTTACATCCTGAGGTTGCCGATTTGGATATTTCTGCTGCTCTTGGC
5 CCCCCACTTAATTGGTGAATTCTAACTCTTGCTACTGGTATCGTCCAAAATCCAAA
TATAGTCAACAGTGTAGTGGCTCTGCTGTCCATTGCGGGGTGCTGTTGGATCTGGATT
CCTCAG

SEQ ID NO:18

10 Exon 12 of hSSG

AAACATACAAGAAATGCCATTCTTTAAAATCATCAGTTATTTACATTCCAAAATA
TTGCAGTGAGATTCTGTAGTCAATGAGTTCTACGGACTGAATTCACTTGTG

15 **SEQ ID NO:19**

Exon 13 of hSSG

GCAGCTCAAATGTTCTGTGACAACATAATCCAATGTGTGCCTCACTCAAGGAATTCAAT
TCATTGAGAAAACCTGCCAGGTGCAACATCTAGATTACAATGAACCTTCTGATTGT
20 ATTCATTTATTCCAGCTCTGTACCTAGGAATAGTTGTTCAAATAAGGGATCATC
TCATTAGCAGGTAGTGAAAGCCATGGCTGGAAAATGGAAGTGAAGCTGCCACTGTGCA
TGACTGCTCTGAACGCTGAAATGAGAGTGCATGTATTCTTCTTGACAGGACATCTC
AAGTCTTTAACCATTAAGACTCCATTGTGCCTCTGGATCCAAGCAGGCCTGAATGC
AATGGAAGTGGTTATAGTCCCTTGCTCTTACAACATTGCAGGGACATGTGGTTATTGGA
25 AATTGTGACTGAGCGGACCAAGAATGTAAATAATTACATAAACCTATGGG